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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,068	03/28/2007	Kokkie Schnetz	8459.019.USD000	4855
77213 7590 02/10/2009 Novak Druce + Quigg, LLP 1300 Eye Street, NW, Suite 1000 Suite 1000, West Tower Washington, DC 20005				
EXAMINER				
WONG, EDNA				
ART UNIT		PAPER NUMBER		
1795				
MAIL DATE		DELIVERY MODE		
02/10/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/584,068

**Applicant(s)**

SCHNETZ ET AL.

**Examiner**

EDNA WONG

**Art Unit**

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 16, 2008 has been entered.

This is in response to the Amendment After Final dated December 16, 2008. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

***Response to Arguments***

**Specification**

The disclosure has been objected to because of minor informalities.

The objection of the disclosure has been withdrawn in view of Applicants' amendment.

**Claim Rejections - 35 USC § 112**

I. Claims **1-11** have been rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With regards **1-7 and 9-11**, the rejection under 35 U.S.C. 112, first paragraph, has been withdrawn in view of Applicants' amendment.

With regards to claim **8**, the rejection under 35 U.S.C. 112, first paragraph, is as applied in the Office Action dated September 16, 2008 and incorporated herein. The rejection has been maintained for the following reasons:

**Claim 8**

lines 1-2, recite "wherein a remainder of space, on the front wall, between the moveable edge masks is open to directly oppose the moving strip".

"A remainder of space " is not disclosed in the specification even once.

"Open" is not disclosed in the specification even once.

These terms are not commensurate in scope with Applicants' disclosure.

Is the open remainder of space the unmasked portion of the wall of the tin anodes? Or the holes in Applicants' Fig. 7?

II. Claims **6-8** have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection of claims 6-8 under 35 U.S.C. 112, second paragraph, has been

withdrawn in view of Applicants' amendment.

Claim Rejections - 35 USC § 103

I. Claims **1-2, 5-6 and 8** have been rejected under 35 U.S.C. 103(a) as being unpatentable over **Nachtman** (US Patent No. 1,991,817) in combination with **Botts et al.** (US Patent No. 5,776,327).

The rejection of claims 1-2, 5-6 and 8 under 35 U.S.C. 103(a) as being unpatentable over Nachtman in combination with Botts et al. has been withdrawn in view of Applicants' amendment.

II. Claims **3 and 4** have been rejected under 35 U.S.C. 103(a) as being unpatentable over **Nachtman** (US Patent No. 1,991,817) in combination with **Botts et al.** (US Patent No. 5,776,327) as applied to claims 1-2, 5-6 and 8 above, and further in view of **Schober** (US Patent No. 4,164,454).

The rejection of claims 3 and 4 under 35 U.S.C. 103(a) as being unpatentable over Nachtman in combination with Botts et al. as applied to claims 1-2, 5-6 and 8 above, and further in view of Schober has been withdrawn in view of Applicants' amendment.

III. Claims **9-11** have been rejected under 35 U.S.C. 103(a) as being unpatentable over **Nachtman** (US Patent No. 1,991,817) in combination with **Botts et al.** (US Patent

No. 5,776,327) as applied to claims 1-2, 5-6 and 8 above, and further in view of

**Allen** (US Patent No. 2,719,820).

The rejection of claims 9-11 under 35 U.S.C. 103(a) as being unpatentable over **Nachtman** in combination with **Botts et al.** as applied to claims 1-2, 5-6 and 8 above, and further in view of **Allen** has been withdrawn in view of Applicants' amendment.

**IV.** Claims **1-2 and 5-8** have been rejected under 35 U.S.C. 103(a) as being unpatentable over **Nachtman** (US Patent No. 1,991,817) in combination with **Kinghorn** (US Patent No. 5,454,929) and **Delfrate et al.** (US Patent No. 5,582,708).

The rejection of claims 1-2 and 5-8 under 35 U.S.C. 103(a) as being unpatentable over **Nachtman** in combination with **Kinghorn** and **Delfrate et al.** has been withdrawn in view of Applicants' amendment.

**V.** Claims **3 and 4** have been rejected under 35 U.S.C. 103(a) as being unpatentable over **Nachtman** (US Patent No. 1,991,817) in combination with **Kinghorn** (US Patent No. 5,454,929) and **Delfrate et al.** (US Patent No. 5,582,708) as applied to claims 1-2 and 5-8 above, and further in view of **Schober** (US Patent No. 4,164,454).

The rejection of claims 3 and 4 under 35 U.S.C. 103(a) as being unpatentable over **Nachtman** in combination with **Kinghorn** and **Delfrate et al.** as applied to claims 1-2 and 5-8 above, and further in view of **Schober** has been withdrawn in view of

Applicants' amendment.

VI. Claims **9-11** have been rejected under 35 U.S.C. 103(a) as being unpatentable over **Nachtman** (US Patent No. 1,991,817) in combination with **Kinghorn** (US Patent No. 5,454,929) and **Delfrate et al.** (US Patent No. 5,582,708) as applied to claims 1-2 and 5-8 above, and further in view of **Allen** (US Patent No. 2,719,820).

The rejection of claims 9-11 under 35 U.S.C. 103(a) as being unpatentable over Nachtman in combination with Kinghorn and Delfrate et al. as applied to claims 1-2 and 5-8 above, and further in view of Allen has been withdrawn in view of Applicants' amendment.

### ***Response to Amendment***

#### ***Claim Objections***

Claim 1 is objected to because of the following informalities:

#### Claim 1

line 5, it is suggested that the word -- and -- be inserted after the word "strip,".

line 19, it is suggested that the word -- and -- be inserted after the word "distribution,".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

I. Claims **1-8 and 11** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1

line 6, it appears that the "tin anodes" are the same as the first and second pairs of tin anodes recited in claim 1, line 3. However, the claim language is unclear as to whether they are.

Subsequent mention of an element is to be modified by the definite article "the", "said", or "the said," thereby making the latter mention(s) of the element unequivocally referable to its earlier recitation.

Claim 3

line 4, "the electrolyte" lacks antecedent basis.

II. Claim **8** is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: between the anode front wall and the remainder of space.

Claim 8

lines 1-2, recite "wherein a remainder of space, on the front wall, between the moveable edge masks is open to directly oppose the moving strip".

Parent Claim 1 does not recite "a space" on the front wall for there to be "a remainder of space" on the front wall, and does not recite that anything that is closed versus to have the remainder of space on the front wall to be opened.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

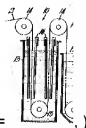
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

I. Claims **1-2, 5-8 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Allen** (US Patent No. 2,719,820) in combination with **Schober** (US Patent No. 4,164,454), **Delfrate et al.** (US Patent No. 5,582,708), **Avellone** (US Patent No. 4,367,125), and **Sato et al.** ("Manufacturing of One-side Electrogalvanized Steel Strip with Heavy Coating", *Transactions ISIJ*, Vol. 23 (1983), pp. 946-953).

Allen teaches a process for high speed metal strip electroplating of a moving strip comprising:

- moving the strip **S** (= a continuous steel strip travels from left to right, passing first through the electrolytic cell) [col. 1, lines 63-65] vertically downwardly between a

first pair of anodes **16** facing the moving strip and then moving the strip vertically



upwardly between a second pair of anodes **16** facing the moving strip **S** (= [Fig. 1], and

- plating the moving strip **S** by the anodes **16** facing the strip in an electroplating solution, and depositing tin on at least part of the strip acting as a cathode (= the tank contains any desired plating bath from which a metal coating, in this instance tin, can be deposited electrolytically on the strip **S**, as known in the art) [col. 2, lines 1-4],

wherein each anode has a top and a bottom and each anode front wall is closer to the strip it faces at the bottom than at the top (Fig. 1), and

wherein the elongated edge portions of the wall of the anodes are elongated substantially vertically (Fig. 1).

The anode is the current collector (= deposited electrolytically on the strip **S**, as known in the art) [col. 2, lines 1-4; and Fig. 1].

The high speed metal strip electroplating occurs along a plating line (col. 1, lines 60-70; and Fig. 1).

The method of Allen differs from the instant invention because Allen does not disclose the following:

- a. Wherein the first and second pairs of anodes are tin anodes, as recited in claim 1.
- b. Wherein the plating of the moving strip is by anodically dissolving tin anodes facing the strip into an electroplating solution, as recited in claim 1.
- c. Wherein each anode comprises an anode basket having a front wall facing a side of the moving strip and the tin of the tin anodes is supplied to the electroplating solution in the form of tin pellets held in each said anode basket, as recited in claim 1.
- d. Wherein the tin pellets are electrically contacted via a current collector made of a material with a low electrical resistance allowing for good electrical contact with the tin pellets and being electrochemically inert in the electrolyte, as recited in claim 3.

Allen teaches that the tank contains any desired plating from which a metal coating, in this instance tin, can be deposited electrolytically on the strip S, as known in the art (col. 2, lines 1-4).

Like Allen, **Schober** teaches a continuous electroplating line for a metallic strip (col. 1, lines 36-44). Schober teaches that each side wall has L-shaped mounting brackets **65** to position an outer anode bag or basket **66**, preferably formed of titanium and holding pellets of the metals to be plated, as well as masks to control plating uniformly, if required (col. 3, lines 52-56; and Fig. 7).

It would have been obvious to one having ordinary skill in the art at the time the

invention was made to have modified the anodes described by Allen with (a) to (d) above because anode baskets, preferably formed of titanium and holding pellets of the metals to be plated, are conventional anodes used in the continuous electroplating of a metallic strip as taught by Schober (col. 1, lines 36-44; and col. 3, lines 52-56).

e. Wherein elongated edge portions of the wall of the tin anodes are masked out using adjustable masking means comprising elongated moveable edge masks, the adjustable masking means controlled and guided dependent on strip width and/or tin coating thickness distribution, as recited in claim 1.

f. Wherein the elongated moveable edge masks are elongated substantially vertically, as recited in claim 1.

Schober teaches that each side wall has L-shaped mounting brackets **65** to position an outer anode bag or basket **66**, preferably formed of titanium and holding pellets of the metals to be plated, as well as masks to control plating uniformly, if required (col. 3, lines 52-56; and Fig. 7).

Like Allen, **Delfrate** teaches the continuous electroplating of a steel strip (col. 5, lines 62-64). Delfrate teaches:

That the masks bordering the anodes of the electroplating cells of the installation cause an abrupt variation in the current density at the inlet and at the outlet of the various anodes of the installation, something which makes it possible to ensure plating under more uniform current density conditions, guaranteeing a constant alloy composition through the thickness of the layer (col. 6, lines 6-13).

Like Allen, **Avellone** teaches a continuous electroplating line for a steel strip (col.

5, lines 14-26). Delfrate teaches:

Tree growth and edge buildup can occur when the plating solution is allowed to flow unrestricted from the anode to the workpiece. Tree growth is illustrated schematically at 102 in FIG. 4. The filamentary so called "trees" grow along the edge of the workpiece and degrade the plating near the workpiece edge. Edge buildup is a phenomenon where macroscopic nodules appear along the workpiece edges and result in a nonuniform plating.

Tests have shown that by continuously masking off a portion of the current flow, it is possible to eliminate these phenomena. During plating, the masking plates are positioned so that, depending on operational current density, their edges nearly coincide with or overlap the edge of the workpiece (see FIG. 5). With the masks in this position, it has been observed that neither the trees nor the nodules appear along the edge of the workpiece. Excess plating deposition on or close to the strip edge is prevented because current path is not continuous beyond the strip edge.

One technique for mounting the plating masks is shown in FIG. 3. A mask plate guide 104 is attached to the frame 88 and is therefore fixed in relation to the anode unit. The masks 100, slide along a region 106 of the guide parallel to the anode plating surface. The vertical positioning of the guide 104 is such that by sliding the mask 100 along this region 106, the mask reduces the area of current flow within the gap between the anode and strip. Positioning of the masks varies depending upon the width of the material to be plated. Should adjustments be deemed necessary due to tree or nodule growth, the masking plates are moved to the desired position manually or automatically along the guide 104. In this way, the plating user maintains control over the masking width and can vary that positioning depending upon the results obtained during the plating process (col. 8, lines 13-49).

Like Allen, **Sato** teaches the continuous electroplating of a steel strip. Sato teaches that in order to prevent edge coating, it is important to prevent the concentration of the current at the edge section. The possible countermeasures will include the following:

- 1) reducing the width of the electrode
- 2) utilizing an auxiliary cathode
- 3) utilizing the edge mask (page 949).

Use of the edge masks is effective to eliminate edge overcoating as shown in

Fig. 6. The use of the edge masks will also decrease the amount of throw-around of zinc to the edge section of the uncoated surface (page 950).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the elongated edge portions of the wall of the tin anodes described by the Allen combination with wherein the elongated edge portions of the wall of the tin anodes are masked out using adjustable masking means comprising elongated moveable edge masks elongated the adjustable masking means controlled and guided dependent on strip width and/or tin coating thickness distribution; and wherein the elongated moveable edge masks are elongated substantially vertically because having edge masks bordering the anodes of the electroplating cell would have made it possible to eliminate tree growth and edge buildup along the edges of the moving strip as taught by Delfrate (col. 6, lines 6-13), Avellone (col. 8, lines 13-49) and Sato (pages 949-950).

The selection of old parts to operate in new environments in order to achieve the same results was held to have been obvious. *In re Ross* 105 USPQ 237. And the substitution of known equivalent structures was held to have been obvious. *In re Ruff* 118 USPQ 343 (CCPA 1958).

g. Wherein the masking means comprise a shutter or blind, as recited in claim 2.

Delfrate teaches panel-shaped masks **4A**, **4B** (col. 3, lines 47-50; and Figs. 1

and 2)).

Avellone teaches masking plates **100** (col. 8, lines 44-46; and Fig. 3).

h.       Wherein an automated supply system is provided to add the tin pellets to the anode basket, as recited in claim 5.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process described by the Allen combination with wherein an automated supply system is provided to add the tin pellets to the anode basket because when the pellets of the metal to be plated disclosed by Schober (col. 3, lines 52-56) are depleted in the continuous electroplating process, one having ordinary skill in the art has the knowledge and skill to add more metal pellets into the anode basket to provide for the continuous operation of the coating line.

The provision of mechanical or automated means to replace manual activity was held to have been obvious (MPEP 2144.04(III)).

i.       Wherein a transverse overlap of a respective said edge mask and the strip has a value in a range from 30 to 60 mm, as recited in claim 6.

j.       Wherein the edge masks are operated from a distance from the plating line to move the edge masks to adjust transverse overlap of the edge mask and strip, as recited in claim 7.

k.       Wherein the longitudinal axis of the moving strip facing the front wall does

not oppose the moveable edge masks, as recited in claim 11.

Avellone teaches that:

Tests have shown that by continuously masking off a portion of the current flow, it is possible to eliminate these phenomena. During plating, the masking plates are positioned so that, depending on operational current density, their edges nearly coincide with or overlap the edge of the workpiece (see FIG. 5). With the masks in this position, it has been observed that neither the trees nor the nodules appear along the edge of the workpiece. Excess plating deposition on or close to the strip edge is prevented because current path is not continuous beyond the strip edge.

One technique for mounting the plating masks is shown in FIG. 3. A mask plate guide 104 is attached to the frame 88 and is therefore fixed in relation to the anode unit. The masks 100, slide along a region 106 of the guide parallel to the anode plating surface. The vertical positioning of the guide 104 is such that by sliding the mask 100 along this region 106, the mask reduces the area of current flow within the gap between the anode and strip. Positioning of the masks varies depending upon the width of the material to be plated. Should adjustments be deemed necessary due to tree or nodule growth, the masking plates are moved to the desired position manually or automatically along the guide 104. In this way, the plating user maintains control over the masking width and can vary that positioning depending upon the results obtained during the plating process (col. 8, lines 13-49).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified a transverse overlap of a respective edge mask and the strip described by the Allen combination with wherein a transverse overlap of a respective said edge mask and the strip has a value in a range from 30 to 60 mm; wherein the edge masks are operated from a distance from the plating line to move the edge masks to adjust transverse overlap of the edge mask and strip; and wherein the longitudinal axis of the moving strip facing the front wall does not oppose the moveable edge masks because the value of a transverse overlap of a respective edge mask and the strip is a result-effective variable and one having ordinary skill in the art has the skill to calculate the value of the transverse overlap that would have

determined the success of the desired reaction to occur, e.g., should adjustments be deemed necessary due to tree growth and edge buildup as taught by Avellone (col. 8, lines 13-49) [MPEP § 2141.03 and § 2144.05].

I. Wherein a remainder of space, on the front wall, between the moveable edge masks is open to directly oppose the moving strip, as recited in claim 8.

Schober teaches a continuous electroplating line for a metallic strip (col. 1, lines 36-44). Schober teaches that each side wall has L-shaped mounting brackets **65** to position an outer anode bag or basket **66**, preferably formed of titanium and holding pellets of the metals to be plated, as well as masks to control plating uniformly, if required (col. 3, lines 52-56; and Fig. 7).

Delfrate teaches:

That the masks bordering the anodes of the electroplating cells of the installation cause an abrupt variation in the current density at the inlet and at the outlet of the various anodes of the installation, something which makes it possible to ensure plating under more uniform current density conditions, guaranteeing a constant alloy composition through the thickness of the layer (col. 6, lines 6-13).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the front wall of the anode basket described by the Allen combination with wherein a remainder of space, on the front wall, between the moveable edge masks is open to directly oppose the moving strip because having edge masks bordering the basket anodes of the electroplating cell would have would have naturally had a portion that is open or unmasked to directly oppose the moving strip.

II. Claims **3 and 4** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Allen** (US Patent No. 2,719,820) in combination with **Schober** (US Patent No. 4,164,454), **Delfrate et al.** (US Patent No. 5,582,708), **Avellone** (US Patent No. 4,367,125), and **Sato et al.** ("Manufacturing of One-side Electrogalvanized Steel Strip with Heavy Coating", *Transactions ISIJ*, Vol. 23 (1983), pp. 946-953) as applied to claims 1-2, 5-8 and 11 above, and further in view of **Kinghorn** (US Patent No. 5,454,929).

Allen, Schober, Delfrate, Avellone and Sato are as applied above and incorporated herein.

The method of Allen differs from the instant invention because Allen does not disclose wherein the tin pellets are electrically contacted via a current collector made of a material with a low electrical resistance allowing for good electrical contact with the tin pellets and being electrochemically inert in the electrolyte, as recited in claim 3.

Like Allen, **Kinghorn** teaches the continuous electroplating of a ribbon (Fig. 4). Kinghorn teaches that:

FIG. 4 is a diagrammatic representation of an exemplary flood plating reaction chamber or reactor 25. A tub 26 contains anodes 27 immersed in an electrolyte. The anodes 27 are typically either wire screens or baskets. An anode screen is generally titanium or platinized titanium. An anode basket is generally made of a titanium screen and contains chunks of the metal, such as nickel or palladium, which will be deposited. The anodes are connected to a pulsed or direct current source 28 (col. 6, line 61 to col. 7, line 2).

A lead frame ribbon 30 is made cathodic by a connection to the pulsed or direct current source 28 and passed through the tub 26. This results in electrodeposition. Slits 31 may contain gaskets to prevent overflow of electrolyte through the slits 31. Clearly, many variations of the flood plating reactor 25 are possible (col. 7, line 10-15).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the tin pellets described by the Allen combination with wherein the tin pellets are electrically contacted via a current collector made of a material with a low electrical resistance allowing for good electrical contact with the tin pellets and being electrochemically inert in the electrolyte because connecting a titanium screen basket anode to a pulsed or direct current source and making the moving strip cathodic by a connection to a pulsed or direct current source would have resulted in electrodeposition as taught by Kinghorn (col. 7, line 10-15; and Fig. 4).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDNA WONG whose telephone number is (571) 272-1349. The examiner can normally be reached on Mon-Fri 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Edna Wong/  
Primary Examiner  
Art Unit 1795

EW  
February 6, 2009